Laborator si seminar

Programare in Java si software matematic

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Packages

Package is a grouping of related types (classes, interfaces, enumerations and annotations) providing access protection and namespace management.

Some of the existing packages in Java are –

- **java.lang** – bundles the fundamental classes
- **java.io** – classes for input , output functions are bundled in this package

Why Packages

Packages are used in Java in order

- to prevent naming conflicts
- to control access
- to make searching/locating and usage of classes, interfaces, enumerations and annotations easier, etc.

How to create Packages

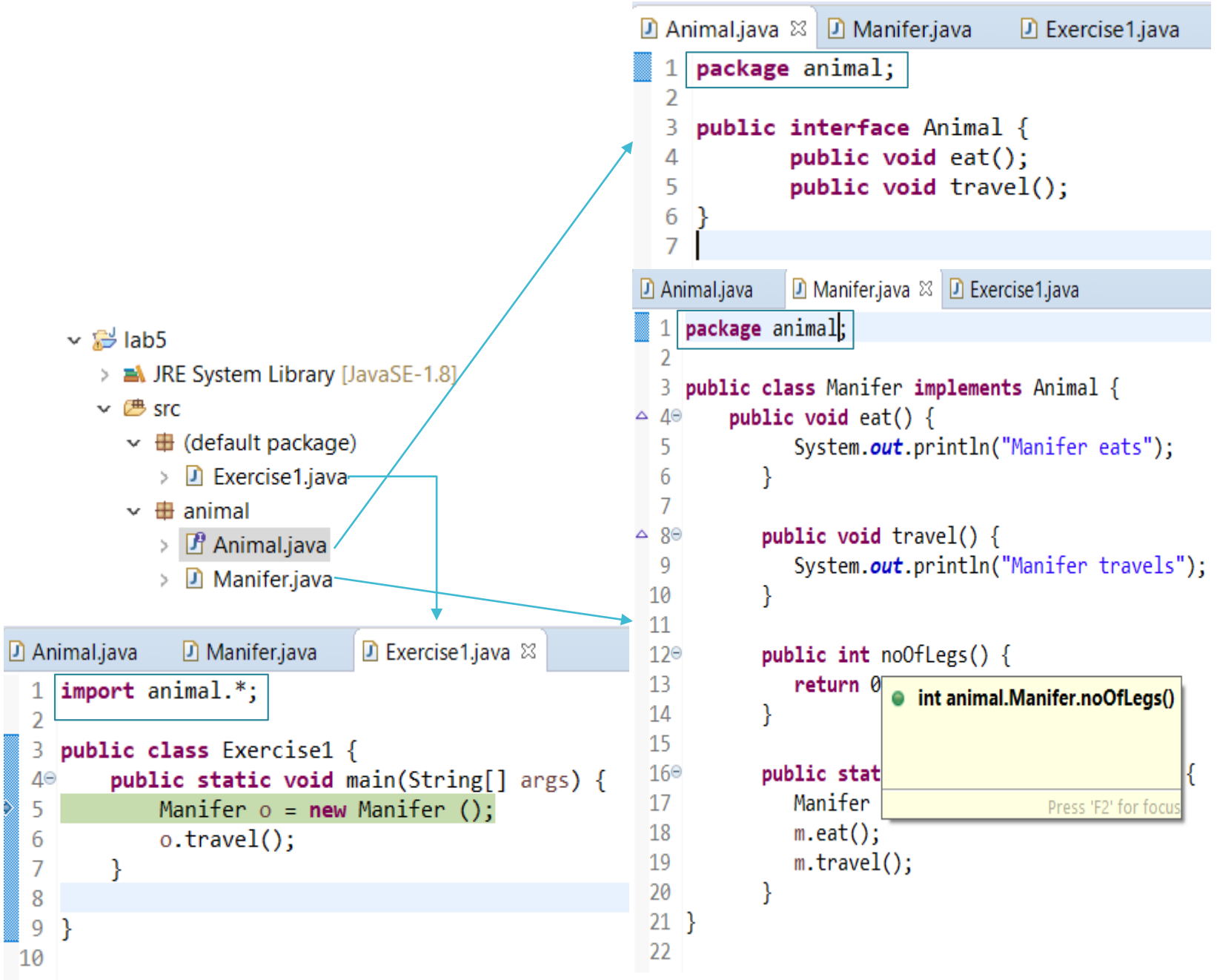
Use of the Key word **package**

Package statement is the first line of the source file

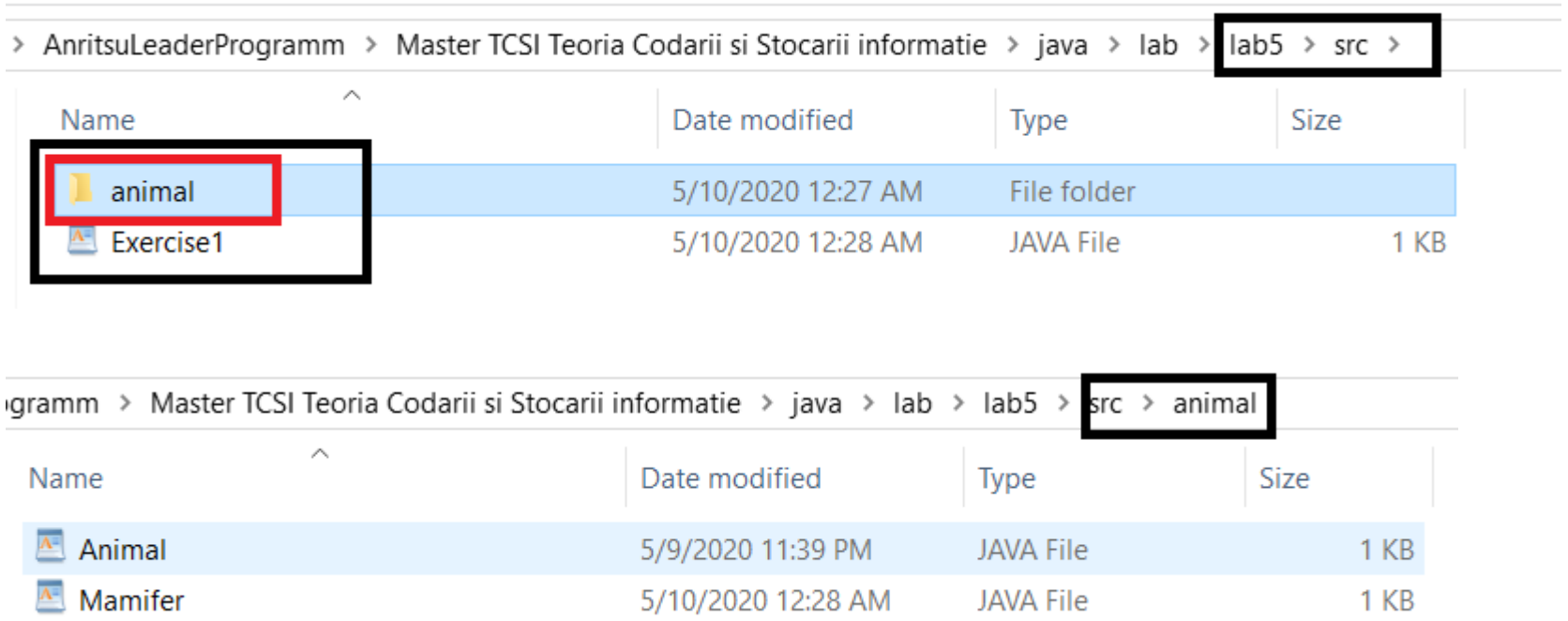
It can be only one package statement in each source file

If **package** statement is not used then the class, interface, enumerations and annotation type will be placed in the current default package

Package

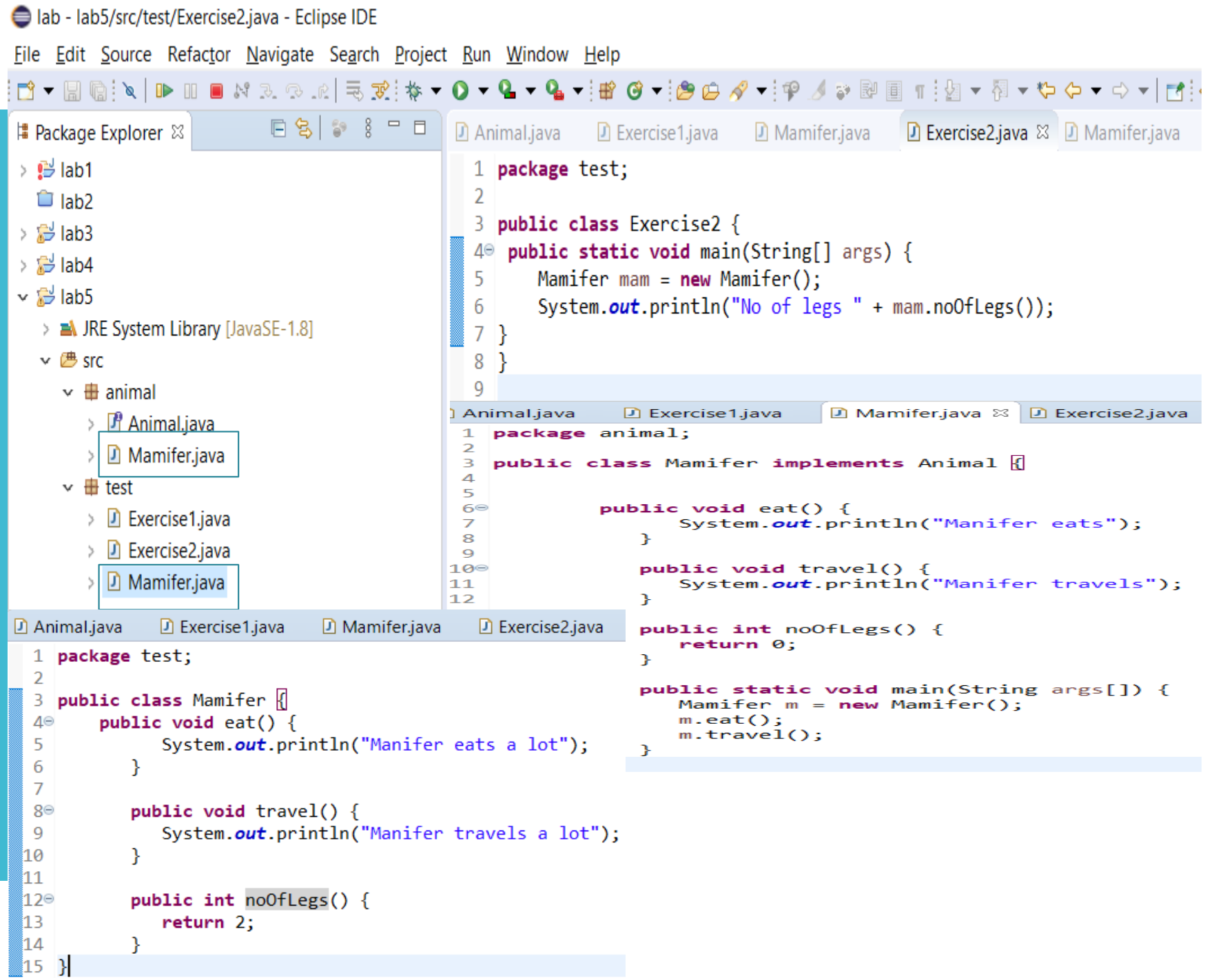

lab5
JRE System Library [JavaSE-1.8]
src
(default package)
Exercise1.java
animal
Animal.java
Manifer.java
Animal.java
Manifer.java
Exercise1.java
1 package animal;
2
3 public interface Animal {
4 public void eat();
5 public void travel();
6 }
7
Animal.java
Manifer.java
Exercise1.java
1 package animal;
2
3 public class Manifer implements Animal {
4 public void eat() {
5 System.out.println("Manifer eats");
6 }
7
8 public void travel() {
9 System.out.println("Manifer travels");
10 }
11
12 public int noOfLegs() {
13 return 0
14 }
15
16 public stat {
17 Manifer
18 m.eat();
19 m.travel();
20 }
21 }
22
int animal.Manifer.noOfLegs()
Press 'F2' for focus
Animal.java
Manifer.java
Exercise1.java
1 import animal.*;
2
3 public class Exercise1 {
4 public static void main(String[] args) {
5 Manifer o = new Manifer ();
6 o.travel();
7 }
8
9 }
10

Package Directory Structure



A package/folder with the name **animals** will be created in the current directory and these class files will be placed in it as shown below.

Packages Prevent Name Conflict



Homework

Please write a new app in test Package an define objects of Mamifer Type from both test and animal Package. Tip: use both Exercise 1 and 2.